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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/821,182	03/29/2001	Daniel R. Shepard	NUP-001RE	4816

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GOODWIN PROCTER LLP
PATENT ADMINISTRATOR
53 STATE STREET
EXCHANGE PLACE
BOSTON, MA 02109-2881

EXAMINER	
TRAN, ANDREW Q	
ART UNIT	PAPER NUMBER
2824	

NOTIFICATION DATE	DELIVERY MODE
12/24/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PatentBos@goodwinprocter.com
hmcpeake@goodwinprocter.com
glenn.williams@goodwinprocter.com

Office Action Summary	Application No.	Applicant(s)	
	09/821,182	SHEPARD, DANIEL R.	
	Examiner	Art Unit	
	Andrew Q. Tran	2824	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 October 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *4-13,18,19,21-24,31-42,44-46 and 51-71* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *4-13,18,19,21-24,31-42,44-46 and 51-71* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 112

Claims 4-13, 18-19, 21-24, 31-42, 44-46 and 51-71 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 31, penultimate line, the phrase “directly connected” is not clearly mentioned in the specification. Applicant is requested to amend the specification or explicitly explain.

Claim Rejections - 35 USC § 102

Claim 31 is rejected under 35 U.S.C. 102(b) as being anticipated by Waaben et al. (US Pat 3,701,119 hereafter “Waaben”). See Figs. 1-2 and related descriptions.

As to claim 31, Waaben discloses an information-storage circuit (semiconductor memory array 10 of Fig. 1) comprising first and second sets of conductive lines (digit line 14 and word line 42) overlapping with each other and defining storage locations at overlap regions; a series of information-defining nonlinear elements (memory cell 36), each nonlinear element (memory cell 36) connected to the first and second sets of conductive lines at an overlap region, presence or absence of a nonlinear element connection at a storage location defining a bit state at the location; and address circuitry (control circuitry 12, charge storage diode 30) for disabling all but a selected one of the first set of conductive lines (digit line 14), wherein the address

circuitry comprises a first pattern of rectifiers (charge storage diode 16 and 30) directly connected to the first set of conductive lines.

Applicant's arguments advanced in Amendment filed November 20, 2007 (hereafter "Amendment") have been carefully considered but not deemed to be persuasive. Specifically it is argued that Waaben's control circuitry 12 does not perform any addressing function because it is activated *only after* a particular memory cell 36 has been selected (see Amendment, page 10 bridging to page 11). Emphasis original.

First of all, the above "only after" timeline is not clearly found anywhere in the entire disclosure. Secondly, contrary to Applicant's assertion, it is understood that control circuitry 12 take part in addressing memory cell 36; ie. transistor 24 is turned on, which in turn ceases the forward-bias of diode 16, then the forward conduction of diode 30 is stopped, then word line 42 is activated to select memory cell 36 for data reading through digit line 14 (see Waaben, col. 3, ln. 53-68 bridging to col. 4, ln. 1-63).

Claim 31 is further rejected under 35 U.S.C. 102(b) as being anticipated by Roberts et al. (US Pat 4,608,672 hereafter "Roberts"). See Figs. 1-3 and corresponding descriptions.

As to claim 31, Roberts discloses an information-storage circuit (semiconductor memory in Fig. 3) comprising first and second sets of conductive lines (bit line 78, 80 and word line 58) overlapping with each other and defining storage locations at overlap regions; a series of information-defining nonlinear elements (diode 82, 84), each nonlinear element (diode 82, 84) connected to the first and second sets of conductive lines at an overlap region, presence or absence of a nonlinear element connection at a storage location defining a bit state at the location; and address circuitry (memory array selector 42) for disabling all but a selected one of

the first set of conductive lines, wherein the address circuitry comprises a first pattern of rectifiers (diode 220, 222, 230, 232) directly connected to the first set of conductive lines.

Also in the Amendment, it is argued that Roberts' diode 198 in Fig. 3, *do not* connect to left memory array 20 or right memory array 22 (see Amendment, page 11, 3rd paragraph). Emphasis original.

Applicant's rebuttals are also not deemed persuasive because diode 220, 222, 230, 232 (claimed "first pattern of rectifiers") are shown directly connected to bit line 78, 80 in Fig. 3.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Q. Tran whose telephone number is (571) 272-1885. The examiner can normally be reached on Mon - Fri 8:30 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard T. Elms can be reached on (571) 272-1869. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Andrew Q Tran
Primary Examiner
Art Unit 2824

/Andrew Q Tran/
Primary Examiner, Art Unit 2824